Save Water: Indoors

- 1. Never put water down the drain when there may be another use for it such as watering a plant or garden, or cleaning.
- Verify that your home is leak-free, because many homes have hidden water leaks. Read your water meter before and after a two-hour period when no water is being used. If the meter does not read exactly the same, there is a leak.
- Repair dripping faucets by replacing washers. If your faucet is dripping at the rate of one drop per second, you can expect to waste 2,700 gallons per year which will add to the cost of water and sewer utilities, or strain your septic system.
- 4. Check for toilet tank leaks by adding food coloring to the tank. If the toilet is leaking, color will appear within 30 minutes. Check the toilet for worn out, corroded or bent parts. Most replacement parts are inexpensive, readily available and easily installed. (Flush as soon as test is done, since food coloring may stain tank.)
- 5. Avoid flushing the toilet unnecessarily. Dispose of tissues, insects and other such waste in the trash rather than the toilet.
- 6. Put plastic bottles or float booster in your toilet tank to cut down on water waste, put an inch or two of sand or pebbles inside each of two plastic bottles to weigh them down. Fill the bottles with water, screw the lids on, and put them in your toilet tank, safely away from the operating mechanisms. Or, buy an inexpensive Tank Bank or float booster. This may save ten or more gallons of water per day.
 - Be sure at least 3 gallons of water remain in the tank so it will flush properly. If there is not enough water to get a proper flush, users will hold the lever down too long or do multiple flushes to get rid of waste. Two flushings at 1.4 gallons is worse than a single 2.0 gallon flush. A better suggestion would be to buy an adjustable toilet flapper that allow for adjustment of their per flush use. Then the user can adjust the flush rate to the minimum per flush setting that achieves a single good flush each time.
 - For new installations, consider buying "low flush" toilets, which use 1 to 2 gallons per flush instead of the usual 3 to 5 gallons.
 - Replacing an 18 liter per flush toilet with an ultra-low volume (ULV) 6 liter flush model represents a 70% savings in water flushed and will cut indoor water use by about 30%.
- 7. Take shorter showers. Replace you showerhead with an ultra-low-flow version. Some units are available that allow you to cut off the flow without adjusting the water temperature knobs.
- 8. Use the minimum amount of water needed for a bath by closing the drain first and filling the tub only 1/3 full. Stopper tub before turning water. The initial burst of cold water can be warmed by adding hot water later.
- Don't let water run while shaving or washing your face. Brush your teeth first while waiting for water to get hot, then wash or shave after filling the basin. Fill the sink with a few inches of warm water. This will rinse your razor just as well as running water, with far less waste of water.
- 10. Retrofit all wasteful household faucets by installing aerators with flow restrictors.
- 11. Operate automatic dishwashers and clothes washers only when they are fully loaded or properly set the water level for the size of load you are using.
- 12. When washing dishes by hand, fill one sink or basin with soapy water. Quickly rinse under a slow-moving stream from the faucet.
- Store drinking water in the refrigerator rather than letting the tap run every time you want a cool glass of water.
- 14. Do not use running water to thaw meat or other frozen foods. Defrost food overnight in the refrigerator or by using the defrost setting on your microwave.
- 15. Don't let the faucet run while you clean vegetables

 Just rinse them in a stoppered sink or a pan of clean water. Use a dual-setting aerator.

- 16. Kitchen sink disposals require lots of water to operate properly. Start a compost pile as an alternate method of disposing food waste instead of using a garbage disposal. Garbage disposals also can add 50% to the volume of solids in a septic tank that can lead to malfunctions and maintenance problems.
- 17. Consider installing an instant water heater on your kitchen sink so you don't have to let the water run while it heats up. This will reduce heating costs for your household.
- 18. Insulate your water pipes. You'll get hot water faster plus avoid wasting water while it heats up.
- 19. Never install a water-to-air heat pump or air-conditioning system. Air-to-air models are just as efficient and do not waste water.
- Install water-softening systems only when necessary. Save water and salt by running the
 minimum amount of regenerations necessary to maintain water softness. Turn softeners off
 while on vacation.
- 21. Check your pump. If you have a well at your home, listen to see if the pump kicks on and off while the water is not in use. If it does, you have a leak.
- 22. When adjusting water temperatures, instead of turning water flow up, try turning it down. If the water is too hot or cold, turn the offender down rather than increasing water flow to balance the temperatures.
- 23. If the toilet flush handle frequently sticks in the flush position, letting water run constantly, replace or adjust it.

Save Water: Outdoors

- 22. Don't over water your lawn. Water your lawn only when it needs it. As a general rule, lawns only need watering every 5 to 7 days in the summer and every 10 to 14 days in colder months. A hearty rain eliminates the need for watering for as long as two weeks. A good way to see if your lawn needs watering is to step on the grass. If it springs back up when you move, it doesn't need water. If it stays flat, the lawn is ready for watering. Most lawns only need about 1" of water each week. During dry spells, you can stop watering altogether and the lawn will go brown and dormant. Once cooler weather arrives, the morning dew and rainfall will bring the lawn back to its usual vigor. This may result in a brown summer lawn, but it saves a lot of water.
- 23. Water lawns during the early morning hours when temperatures and wind speed are the lowest. This reduces losses from evaporation.
- 24. Deep-soak your lawn. When watering the lawn, do it long enough for the moisture to soak down to the roots where it will do the most good. A light sprinkling can evaporate quickly and tends to encourage shallow root systems. Put an empty tuna can on your lawn - when it's full, you've watered about the right amount.
- 25. Don't water your street, driveway or sidewalk. Position your sprinklers so that your water lands on the lawn and shrubs ... not the paved areas
- 26. Install sprinklers that are the most water-efficient for each use. Micro and drip irrigation and soaker hoses are examples of water-efficient methods of irrigation.
- 27. Regularly check sprinkler systems and timing devices to be sure they are operating properly. It is now the law that "anyone who purchases and installs an automatic lawn sprinkler system MUST install a rain sensor device or switch which will override the irrigation cycle of the sprinkler system when adequate rainfall has occurred." To retrofit your existing system, contact an irrigation professional for more information.

- 28. Raise the lawn mower blade to at least three inches. A lawn cut higher encourages grass roots to grow deeper, shades the root system and holds soil moisture better than a closely clipped lawn.
- 28. Avoid over fertilizing your lawn. The application of fertilizers increases the need for water. Apply fertilizers that contain slow-release, water-insoluble forms of nitrogen.
- 29. Mulch to retain moisture in the soil. Mulching also helps to control weeds that compete with plants for water. Put a layer of mulch around trees and plants. Mulch will slow evaporation of moisture while discouraging weed growth. Adding 2 4 inches of organic material such as compost or bark mulch will increase the ability of the soil to retain moisture. Press the mulch down around the drip line of each plant to form a slight depression that will prevent or minimize water runoff.
- 30. Plant native and/or drought-tolerant grasses, ground covers, shrubs and trees. Once established, they do not need to be watered as frequently and they usually will survive a dry period without any watering. Group plans together based on similar water needs.
- 31. Plant it smart, Xeriscape. Xeriscape landscaping is a great way to design, install and maintain both your plantings and irrigation system that will save you time, money and water. Plant drought-resistant lawns, shrubs and plants. If you are planting a new lawn, or overseeding an existing lawn, use drought-resistant grasses. Many beautiful shrubs and plants thrive with far less watering than other species. Replace herbaceous perennial borders with native plants. Native plants will use less water and be more resistant to local plant diseases. Consider applying the principles of xeriscaping for a low-maintenance, drought resistant yard. Plant slopes with plants that will retain water and help reduce runoff. Group plants according to their watering needs.
- 32. Add organic matter and use efficient watering systems for shrubs, flowerbeds and lawns Adding organic material to your soil will help increase its absorption and water retention. Areas that are already planted can be 'top dressed' with compost or organic matter. You can greatly reduce the amount of water used for shrubs, beds and lawns by:
 - the strategic placement of soaker hoses
 - installing a rain barrel catch system
 - installing a simple drip-irrigation system

Avoid over-watering plants and shrubs, as this can actually diminish plant health and cause yellowing of the leaves.

When hand watering, use a variable spray nozzle for targeted watering.

- 33. Do not hose down your driveway or sidewalk. Use a broom to clean leaves and other debris from these areas. Using a hose to clean a driveway can waste hundreds of gallons of water.
- 34. Outfit your hose with a shut-off nozzle that can be adjusted down to fine spray so that water flows only as needed. When finished, "Turn it Off" at the faucet instead of at the nozzle to avoid leaks.
- 33. Use hose washers between spigots and water hoses to eliminate leaks.
- 34. Do not leave sprinklers or hoses unattended. Your garden hoses can pour out 600 gallons or more in only a few hours, so don't leave the sprinkler running all day. Use a kitchen timer to remind yourself to turn it off.
- 35. Check all hoses, connectors and spigots regularly.
- 36. Consider using a commercial car wash that recycles water. If you wash your own car, park on the grass to do so. Don't run the hose while washing your car. Clean the car using a pail of soapy water. Use the hose only for rinsing this simple practice can save as much as 150 gallons when washing a car. Use a spray nozzle when rinsing for more efficient use of water.
- 37. Avoid the installation of ornamental water features (such as fountains) unless the water is recycled. Locate where there are mineral losses due to evaporation and wind drift.
- 38. If you have a swimming pool, consider a new water-saving pool filter. A single back flushing with a traditional filter uses from I80 to 250 gallons or more of water.

Water Conservation Summary

In 1990, 30 states in the US reported 'water-stress' conditions. In 2000, the number of states reporting water-stress rose to 40. In 2009, the number rose to 45. There is a worsening trend in water supply nationwide. Taking measures at home to conserve water not only saves you money, it also is of benefit to the greater community.

Saving water at home does not require any significant cost outlay. Although there are water-saving appliances and water conservation systems such as rain barrels, drip irrigation and on-demand water heaters which are more expensive, the bulk of water saving methods can be achieved at little cost. For example, 75% of water used indoors is in the bathroom, and 25% of this is for the toilet. The average toilet uses 4 gallons per flush (gpf). You can invest in a ULF (ultra-low flush) toilet that will use only 2 gpf. But you can also install a simple tank bank, costing about \$2, which will save .8 gpf. This saves 40% of what you would save with the ULF toilet. Using simple methods like tank banks, low-flow showerheads and faucet aerators you can retrofit your home for under \$50.

By using water-saving features you can reduce your in-home water use by 35%. This means the average household, which uses 130,000 gallons per year, could save 44,00 gallons of water per year. On a daily basis, the average household, using 350 gallons per day, could save 125 gallons of water per day. The average individual, currently using 70 gallons per day, could save 25 gallons of water per day. When buying low-flow aerators, be sure to read the label for the actual 'gpm' (gallons per minute) rating. Often, the big box retailers promote "low-flow" which are rated at 2.5 gpm, which is at the top of the low-flow spectrum. This may be needed for the kitchen sink, but we find that a 1.5 gpm aerator works fine for the bathroom sink and most water outlets, delivering the same spray force in a comfortable, soft stream.

Finally, it should be noted that installing low-flow aerators, showerheads, tank banks and other water-saving devices usually is a very simple operation which can be done by the homeowner and does not even require the use of tools. Water conservation at home is one of the easiest measures to put in place, and saving water should become part of everyday family practice. Water conservation comes naturally when everyone in the family is aware of its importance, and parents take the time to teach children some of the simple water-saving methods around the home, which can make a big difference.